



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,320	07/11/2006	Keisuke Kuroda	043890-0745	8116
20277 7590 08/06/2007 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER KWOK, HELEN C	
			ART UNIT 2856	PAPER NUMBER
			MAIL DATE 08/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/541,320

Applicant(s)

KURODA ET AL.

Examiner

Helen C. Kwok

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date June 30, 2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The abstract of the disclosure is objected to because it contains legal phraseology (i.e. "means"). Correction is required. See MPEP § 608.01(b).

Drawings

3. The drawings are objected. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

Art Unit: 2856

not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figures 1-2 and 5-11, the block elements need to be labeled with its description with the block element.

Figure 11 needs to be labeled as "Prior Art" because only that which is old is illustrated. See MPEP § 608.02(g).

Claim Objections

4. Claims 1-8 are objected to because of the following informalities. Appropriate correction is required.

In claim 1, line 4, what is the word "its" referring to? In line 5, what is the word "its" referring to? In line 7, what is the word "its" referring to? In line 15, what is the word "its" referring to? In line 18, what is the word "its" referring to? In line 24, what is the word "its" referring to? In line 25, what is the word "its" referring to?

In claim 2, line 2, what is the word "its" referring to?

In claim 3, line 2, what is the word "its" referring to?

In claim 4, line 2, what is the word "its" referring to?

In claim 5, line 2, what is the word "its" referring to?

In claim 6, line 2, what is the word "its" referring to?

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 10, the phrase "the output signal" lacks antecedent basis. In line 14, the phrase "the output signal" lacks antecedent basis. In line 17, the phrase "the output side" lacks antecedent basis. In line 21, the phrase "the input side" lacks antecedent basis.

In claim 3, line 3, the phrase "the output signal" lacks antecedent basis.

In claim 5, line 3, the phrase "the output signal" lacks antecedent basis.

In claim 6, line 3, the phrase "signal generating means" is indefinite since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

In claim 7, line 3, the phrase "the detected output" lacks antecedent basis.

In claim 8, line 3, the phrase "the detected output" lacks antecedent basis.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,412,347 (Kuroda et al.) in view of JP 05-037267 (Kinji) or U.S. Patent 6,792,792 (Babala).

Kuroda et al. discloses an angular speed sensor comprising, as illustrated in Figures 1-3, an oscillating element 2; a drive electrode 10; a monitor electrode 11; a detecting electrode 12,13; a drive circuit (not numbered) connected to the drive electrode; a detecting circuit 7,8,9 connected to the detecting electrode; a monitor circuit 2 connected to the monitor electrode; a rectifying circuit 3 for rectifying an output signal of the monitor circuit; a smoothing circuit 4 for smoothing an output signal of the rectifying circuit; an oscillation control circuit 5,25. (See, column 2, line 48 to column 3, line 23). The only difference between the prior art and the claimed invention is the arrangement of a first switch and a second switch as presently claimed. Kinji discloses a high pass filter type automatic gain control amplifier comprising, as illustrated in Figures 1-7, a first switch SC2 and a second switch SC3 with a control signal feeding means (i.e. VCO) to control the ON/OFF of the switches. (See, Abstract). It would have been obvious to a person of ordinary skills in the art at the time of invention to have

readily recognize the advantages and desirability of employing the arrangement of the first and second switches as suggested by Kinji to the apparatus of Kuroda et al. to provide a high pass filter type automatic gain control amplifier capable of making a target value of an output value regardless of a large variation of an input signal.

With regards to claims 2-6, Kinji further discloses the control signal feeding means is fed as a source signal to either the monitor circuit or the drive circuit or the oscillation control circuit or an AC signal applied outside of the sensor. (See, Figures).

With regards to claims 7-8, Babala discloses an angular rate sensor comprising, as illustrated in Figures 6-8, an angular velocity sensor that is employed in an automobile with a brake system or an airbag. (See, column 1, line 10 to column 4, line 26). It is well known in the art that angular velocity sensor are employed in automobile to provide rate of rotation of a body along its three principle axes to obtain yaw, pitch and roll measurements.

Conclusion

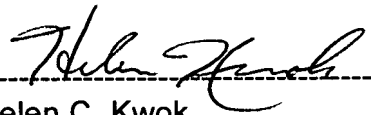
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references cited are related to angular velocity sensor with switches.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Helen C. Kwok
Art Unit 2856

hck
August 1, 2007